

Application Number 10/693,001
Response to Office Action mailed October 2, 2007

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): An antenna for a medical device programmer, wherein the antenna defines an aperture comprising a wide end and a channel adjacent the wide end, wherein the channel is narrower than the wide end and is formed to hold a portion of an item of clothing associated with a patient by an interference fit or friction fit and thereby hold the antenna in a substantially fixed position relative to an implantable medical device.

Claim 2 (Previously Presented): The antenna of claim 1, wherein the wide end of the aperture is sized to receive the portion of the item of clothing to enable at least some of the portion of the item of clothing to be pulled into the channel.

Claim 3 (Original): The antenna of claim 2, wherein the channel is substantially narrower than the wide end of the aperture.

Claim 4 (Previously Presented): The antenna of claim 1, further comprising a cable for connection of the antenna to the medical device programmer.

Claim 5 (Original): The antenna of claim 1, further comprising grip surfaces to grip the antenna.

Claim 6 (Original): The antenna of claim 5, wherein the grip surfaces are rubberized.

Claim 7 (Currently Amended): The antenna of claim 2, wherein the channel of the aperture is tapered ~~such that the wide end and the channel together define a tear drop like shape to receive the portion of the item of clothing.~~

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Claim 8 (Original): The antenna of claim 1, further comprising an insulative telemetry head housing that encases the antenna.

Claim 9 (Currently Amended): A method comprising:

positioning an antenna relative to an implanted medical device, wherein the antenna defines an aperture comprising a wide end and a channel adjacent the wide end, wherein the channel is narrower than the wide end;

pulling at least some of a portion of an item of clothing into the channel in the antenna to thereby hold the antenna in a substantially fixed position relative to the implantable medical device by an interference fit or friction fit between at least a portion of the channel in the antenna and the clothing.

Claim 10 (Canceled).

Claim 11 (Original): The method of claim 1, wherein the channel is substantially narrower than the wide end of the aperture.

Claim 12 (Original): The method of claim 9, wherein the antenna includes a cable, the method further comprising connecting the cable to the medical device programmer.

Claim 13 (Original): The method of claim 9, further comprising gripping grip surfaces on the antenna during positioning of the antenna.

Claim 14 (Original): The method of claim 13, wherein the grip surfaces are rubberized.

Claim 15 (Currently Amended): The method of claim 1, wherein the channel of the aperture is tapered ~~such that the wide end and the channel together define a tear drop like shape to receive the portion of the item of clothing.~~

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Claim 16 (Previously Presented): The antenna of claim 1, wherein the medical device programmer is a neurostimulator programmer.

Claim 17 (Previously Presented): The antenna of claim 9, wherein the medical device is a neurostimulator.

Claim 18 (Currently Amended): A medical device programmer comprising:

- a device housing;

- telemetry circuitry mounted within the device housing;

- an antenna defining an aperture comprising a wide end and a channel disposed adjacent the wide end, wherein the channel is narrower than the wide end and is formed to hold a portion of an item of clothing associated with a patient by an interference fit or friction fit and thereby hold the antenna in a substantially fixed position relative to an implantable medical device;

- a cable to couple the antenna to the telemetry circuitry; and

- control circuitry to control the telemetry circuitry to transmit information to the implantable medical device via the antenna, and receive information from the implantable medical device via the antenna.

Claim 19 (Previously Presented): The medical device programmer of claim 18, wherein the wide end of the aperture is sized to receive the portion of the item of clothing to enable the portion of the item of clothing to be pulled into the channel.

Claim 20 (Original): The medical device programmer of claim 19, wherein the channel is substantially narrower than the wide end of the aperture.

Claim 21 (Previously Presented): The medical device programmer of claim 18, further comprising grip surfaces to grip the antenna.

Claim 22 (Previously Presented): The medical device programmer of claim 21, wherein the grip surfaces are rubberized.

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Claim 23 (Currently Amended): The medical device programmer of claim 19, wherein the channel of the aperture is tapered ~~such that the wide end and the channel together define a tear-drop-like shape to receive the portion of the item of clothing.~~

Claim 24 (Previously Presented): The medical device programmer of claim 18, further comprising an insulative telemetry head housing that encases the antenna.

Claim 25 (Currently Amended): An antenna for a medical device programmer, the antenna comprising:

an antenna head; and

means for attaching the antenna head to an item of clothing associated with a patient and thereby holding the antenna in a substantially fixed position relative to an implantable medical device, wherein the means comprises an aperture defined by the antenna head, wherein the aperture comprises a wide end and a channel disposed adjacent the wide end, wherein the channel is narrower than the wide end and is formed to hold a portion of the item of clothing associated with the patient by an interference fit or friction fit and thereby hold the antenna in a substantially fixed position relative to the implantable medical device.

Claim 26 (Previously Presented): The antenna of claim 25, wherein the medical device is a neurostimulator.

Claim 27 (Currently Amended): An antenna for a medical device programmer, wherein the antenna defines an aperture with a wide end to insert a portion of an item of clothing associated with a patient and a channel disposed adjacent the wide end that is substantially narrower than the wide end of the aperture, wherein the channel is formed to hold the portion of the item of clothing by an interference fit or friction fit and thereby hold the antenna in a substantially fixed position relative to an implantable medical device.

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Claim 28 (Currently Amended): A method comprising:

positioning an antenna relative to an implanted medical device, wherein the antenna defines an aperture with a wide end and a channel disposed adjacent the wide end that is substantially narrower than the wide end of the aperture;

inserting a portion of an item of clothing associated with a patient into the wide end of the aperture; and

pulling the portion of the item of clothing into the channel of the aperture to thereby hold the antenna in a substantially fixed position relative to the implantable medical device by an interference fit or friction fit between at least a portion of the channel and the clothing.

Claim 29 (Currently Amended): A medical device programmer comprising:

a device housing;

telemetry circuitry mounted within the device housing;

an antenna defining an aperture with a wide end to insert a portion of an item of clothing associated with a patient and a channel disposed adjacent the wide end that is substantially narrower than the wide end of the aperture, wherein the channel is formed to hold the portion of the item of clothing and thereby hold the antenna in a substantially fixed position relative to an implantable medical device by an interference fit or friction fit;

a cable to couple the antenna to the telemetry circuitry; and

control circuitry to control the telemetry circuitry to transmit information to the implantable medical device via the antenna, and receive information from the implantable medical device via the antenna.

Claim 30 (Previously Presented): The antenna of claim 1, wherein the antenna comprises:

a housing defining the aperture;

an antenna loop disposed within the housing; and

a cable configured to couple the antenna to the medical device programmer.

Claim 31 (Previously Presented): The antenna of claim 30, wherein the antenna loop is substantially oval in shape.

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Claim 32 (Previously Presented): The antenna of claim 30, wherein the housing is formed at least in part from plastic that is molded to define the aperture.

Claim 33 (Previously Presented): The method of claim 9, wherein the antenna comprises:
a housing defining the aperture;
an antenna loop disposed within the housing; and
a cable configured to couple the antenna to the medical device programmer.

Claim 34 (Previously Presented): The method of claim 33, wherein the antenna loop is substantially oval in shape.

Claim 35 (Previously Presented): The method of claim 33, wherein the housing of the antenna is formed at least in part from plastic that is molded to define the aperture.